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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/621,460	07/21/2000	Hirofumi Kamosawa	048369/0118	4653

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FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

AKKAPEDDI, PRASAD R

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 07/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/621,460

Applicant(s)

KAMOSAWA ET AL.

Examiner

Prasad R Akkapeddi

Art Unit

2871

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 25 June 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1-6, 12-13.

Claim(s) withdrawn from consideration: _____.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____.


ROBERT H. KIM

SUPERVISORY PATENT EXAMINER
TECHNOLOGICAL CENTER 2800

Continuation of 2. NOTE: the new issue consists of (a) at least either one of the substrates being 'tapered so that a peripheral portion of the array substrate is smaller than a non-peripheral portion'.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/30/2003 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazlas et al (kazlas) (U.S.Patent No. 5,919,606) in view of Hirakata et al. (Hirakata) (U.S.Patent No. 6,219,127) (both cited previously) and further in view of McMahon et al. (McMahon) (U.S.Patent No. 4,278,327).

Kazlas discloses a liquid-crystal display element (Fig. 9) wherein an array substrate on which a plurality of liquid-crystal injection areas (940) are arranged and each liquid crystal injection area is surrounded by a seal (950) having an aperture and an overall liquid-crystal injection areas being surrounded by an outer peripheral seal (920) having an aperture (930), and an opposing substrate

are adhered together, and the aperture of the outer peripheral seal being sealed by a hole sealant (photo defined adhesive sealer), after which cutting plurality of liquid-crystal injection areas along lines 930A and 930B, scribe lines) as formed between the opposite aperture holes so as to separate individual liquid-crystal injection areas. Kazlas also discloses that a plurality of apertures at the outer peripheral seal are provided (Fig. 9) along the outer peripheral seal (620) and at crossing points each being formed between the outer peripheral seal and a line along (scribe lines) which the individual liquid-crystal injection areas are cut apart, as recited in claim 2 and the outer peripheral seal and the edge sealer comprise a polymeric resin and UV curing (Col. 1, lines 60-64), as recited in claim 4.

Although, polishing of the substrates is well known and quite necessary for proper operation of the liquid crystal display, Kazlas does not explicitly disclose this operation. Hirakata on the other hand, in disclosing a liquid crystal display device, discloses (Col. 3, lines 60-64) polishing the end surfaces of the substrates (101 and 102), as recited in claim 1.

As to the newly recited feature, neither Kazlas nor Hirakata disclose the tapering of the substrate so that a peripheral portion of the substrate is smaller than a non-peripheral portion. McMahon in disclosing electro-optical devices that include liquid crystals discloses that a peripheral portion of a substrate is smaller than a non-peripheral portion (Fig. 5).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the end polishing operation as disclosed by Hirakata and the specific tapering as disclosed by McMahon to the display configuration of Kazlas to protect against contamination and simplify handling (Hirakata, Abstract).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kazlas, Hirakata and McMahon as applied to claim 1 and further in view of Wenz et al. (Wenz) (U.S. Patent No. 5,268,782).

Kazlas discloses separating an individual liquid-crystal injection area, liquid crystal is injected into the liquid-crystal injection area (col. 11, lines 17-44) and sealing of the individual cells.

Although incorporation of polarizers in liquid crystal display is also well known, Kazlas does not explicitly disclose the application of polarizers.

Wenz on the other hand, in disclosing a similar multi cell liquid crystal display device, discloses polarizers (24, 26).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the polarizers disclosed by Wenz to the display configuration of Kazlas to achieve high contrast and high brightness displays.

Allowable Subject Matter

5. Claims 5-6 and 12-13 are allowed.
6. The following is an examiner's statement of reasons for allowance:

None of the prior art teaches that for a liquid crystal display element **array**, an array substrate is being tapered so that a peripheral portion of the array substrate is smaller than a non-peripheral portion and the peripheral portion is polished, before cutting apart the individual liquid crystal injection areas.

The difference between the allowed claims and the rejected claims is that the allowed claims recite the tapering configuration for the entire array substrate whereas for the rejected claims the tapered configuration could broadly be interpreted as belonging to an individual element.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prasad R Akkapeddi whose telephone number is 703-305-4767. The examiner can normally be reached on 7:00AM to 5:30PM M-Th.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on 703-305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.

RA

Prasad R Akkapeddi
Examiner
Art Unit 2871

TOANTON
PRIMARY EXAMINER